



Federal Aviation Administration

Memorandum

Date: December 3, 2019

To: James Wilborn, Transport Standards Branch, AIR-670

From: Daniel J. Elgas, Manager, Policy & Innovation Division, Certification Procedures Branch, AIR-6C0

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Subject: Approved Deviation to FAA Orders 8110.4C, 8110.112A, and 8100.16 to Remove the Requirements to Develop Issue Papers for Certain Special Conditions and Equivalent Level of Safety Findings

Memo No.: AIR600-18-6C0-DM106, Revision 1

Reference: AIR-600-18-6C0-DM106, dated September 6, 2018

This memorandum approves two separate Transport Standards Branch (TSB) requests, dated July 19, 2018 and October 25, 2019, to deviate from certain issue paper and policy requirements in the following orders:

- 8110.4C, *Type Certification*,
- 8110.112A, *Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums*
- 8100.16, *Aircraft Certification Service Policy Statement, Policy Memorandum, and Deviation Memorandum Systems*

This deviation approval allows the TSB to use alternative documents in lieu of an issue paper for an equivalent level of safety (ELOS), special condition or an unsafe features or characteristics that could preclude certification (reference title 14, Code of Federal Regulations 21.21(b)(2)).

This deviation only applies to issue papers and policy related to 14 CFR part 25 airworthiness standards.

Background

Order 8110.4 states that “special conditions are generally developed via the issue paper process” (reference paragraph 2-4j.(3)(c)). Order 8110.4 also states that issue papers are used to document an ELOS (reference paragraph 2-4j.(4)(a)).

Order 8110.112 states that the FAA project team must use the “IP procedures in this order to track the resolution of significant technical, regulatory, and administrative issues that occur during the type certification process” (reference paragraph 1-6). Order 8110.112 further states that a request for an ELOS or a proposed special condition are documented in an issue paper (reference paragraphs 2-3f and 2-3g).

Order 8100.16 states that policy statements cannot be used to establish an ELOS (reference paragraph 2-2c).

The TSB issues a number of special conditions for different airplane designs incorporating the same, or similar, novel or unusual design features. Over time, certain final special conditions do not generally vary from one certification program to the next one. For this subset of special conditions, using issue papers to develop the proposed special conditions does not result in different final special conditions compared to previous certification projects.

The TSB also issues a number of ELOS findings for different airplane designs incorporating the same, or similar, compensating design features or alternative methods of compliance. For this subset of ELOS findings, using issue papers to develop the proposed ELOS findings does not result in different findings compared to previous certification projects.

On September 6, 2018, the TSB requested removing the requirement to develop issue papers for certain proposed special conditions and ELOS findings in order to remove the unnecessary administrative burden on the applicant and the FAA. A deviation was granted via Memo No. AIR-600-18-6C0-DM106, dated September 6, 2018.

On October 25, 2019, the Transport Standards Branch requested:

1. Use of draft policy statements and draft advisory circulars, published for public comment, in lieu of issue papers for equivalent level of safety (ELOS) findings, and
2. A new deviation to allow the use of transport airplane position papers for certain ELOS findings and certain unsafe features or characteristics that could preclude certification as defined in title 14, Code of Federal Regulations 21.21(b)(2).

The TSB developed a transport airplane position paper to address stable means of compliance issues for transport category airplanes where applicants and the FAA agree on the position with no significant changes. The TSB identifies transport airplane position papers using the Transport Airplane Issues (TAI) List (i.e., a “product issues list”). A transport airplane position paper:

1. Documents an approved FAA position, similar to an approved issue paper.
2. Applicants can reference an approved transport airplane position paper in their project specific certification plan.
3. Removes an unproductive, purely administrative coordination process, i.e., reduces touch points inherent to the standard issue paper process that contribute to delays in processing when the FAA and applicant agree on the issue resolution.

4. Uses a format that facilitates the transition to a project specific issue paper, if necessary, i.e., if an applicant does not want to use a transport airplane position paper, the applicant may request an issue paper.
5. Does not take the place of policy statements or advisory circulars. Once the TSB publishes a draft policy statement or draft advisory circular for public comment, the draft policy statement or draft advisory circulars will replace the transport airplane position paper on the TAI List.
6. Does not apply to G-series issues.

This memo is revised to address the second deviation request, dated October 25, 2019, from TSB.

Policy

There are two separate findings related to a request for an ELOS. The first finding is if certain compensating features exist, an equivalency to the airworthiness standard can be made. This finding is made by the standards branch and typically documented in an issue paper.

The second finding is that a design has these compensating features and a finding of compliance to the airworthiness standard can be made based on the ELOS. This second finding is made by the FAA Aircraft Certification Service office responsible for the certification project or their designee.

In place of developing an issue paper for a stable ELOS, the TSB may use the following:

1. Define the compensating factors in a design that can be used to provide a level of equivalency to that established by the airworthiness standards by:
 - 1.1 Issuing a draft policy statement and publishing it for public comment, or
 - 1.2 Issuing a draft advisory circular and publishing it for public comment, or
 - 1.3 Issuing a final policy statement, or
 - 1.4 Issuing a final advisory circular, or
 - 1.5 Issuing a transport airplane position paper
2. An applicant may request to use the ELOS in the draft or final policy statement, draft or final advisory circular, or transport airplane position paper by referring to the applicable document in their project specific certification plan.

The TSB did not request a deviation from documenting the ELOS in a project specific memo. AIR-6C0 does not see any value in documenting an ELOS in a project specific memo when the basis for the ELOS is documented in other publicly available documents, such as a final policy statement or final advisory circular. When using a draft policy statement, draft advisory circular or a transport airplane position paper, an ELOS memorandum is required because these documents are not readily available to the public.

In place of developing issue papers for stable special conditions, the TSB may use the following:

1. Define the proposed special condition requirements to address the novel or unusual design feature by:
 - 1.1 Issuing a draft policy statement to define the proposed special condition requirements and publishing the draft policy statement for public comment, or
 - 1.2 Issuing a draft advisory circular to define the proposed special condition requirements and publishing the draft advisory circular for public comment, or
 - 1.3 Issuing a final policy statement to define the proposed special condition requirements, or
 - 1.4 Issuing a final advisory circular to define the proposed special condition requirements, or
 - 1.5 Issuing a transport airplane position paper to define the proposed special condition requirements, or
 - 1.6 Identifying several recent final special conditions that address the novel or unusual design features.
2. Modify the TAI List item addressing the novel or unusual design features to reference the draft policy statement, final policy statement, draft advisory circular, final advisory circular, transport airplane position paper or recent final special conditions.
3. An applicant may request similar special conditions by submitting a letter to the Aircraft Certification Service office responsible for the certification project. The Aircraft Certification Service office forwards a copy of the applicant letter to the TSB and requests the TSB initiate the special condition rulemaking.
4. The TSB uses the existing special condition rulemaking process to issue a final special condition.

When the TSB can define general or standardized details or information that must be maintained to ensure an unsafe feature or characteristic does not exist (14 CFR 21.21(b)(2)), a transport airplane position paper may be used in lieu of an issue paper. Any design requirements or characteristics used to resolve an unsafe feature or characteristics must still be documented in the type certificate data sheet (TCDS) or supplemental type certificate (STC) limitation section as part of the certification basis.

Conclusion:

Based on the provided information in the referenced memo, AIR-6C0 is approving the deviation to Orders 8110.4C, 8110.112 and 8100.16 to:

1. Use a draft or final policy statement, draft or final advisory circular, or transport airplane position paper in lieu of an issue paper for stable equivalent level of safety (ELOS) findings.

2. Use a draft or final policy statement, draft or final advisory circular, transport airplane position paper or recently issued special conditions in lieu of an issue paper for stable special conditions.
3. Document an ELOS in a final policy statement or final advisory circular, in lieu of an ELOS memo.
4. Document certain unsafe features or characteristics that could preclude certification (14 CFR 21.21(b)(2)) in a transport airplane position paper in lieu of an issue paper.

This deviation only applies to issue papers and policy related to part 25 airworthiness standards.

If you have any questions, please contact Meghan Gordon, AIR-6C1, at meghan.gordon@faa.gov or at (206) 231-3241.